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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/973,910	10/11/2001	Tsai Chu-Chia	ACR0051-US	7467
7:	590 01/02/2003			
Michael D. Bednarek SHAWPITTMAN 1650 Tysons Boulevard			EXAMINER	
			EDWARDS, ANTHONY Q	
McLean, VA	22102-4859		ART UNIT	PAPER NUMBER
			2835	· · · · · ·
			DATE MAILED: 01/02/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)	7
•	09/973,910	CHU-CHIA, TSAI	
Office Action Summary	Examiner	Art Unit	
	Anthony Q. Edwards	2835	
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the o	correspondence address	
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply - If NO period for reply is specified above, the maximum statutory period v - Failure to reply within the set or extended period for reply will, by statute - Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be tir or within the statutory minimum of thirty (30) day will apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).	
Status 1) ■ Responsive to communication(s) filed on 13 l	March 2002		
, ==	is action is non-final.		
3) Since this application is in condition for allows		rosecution as to the merits is	
closed in accordance with the practice under Disposition of Claims	Ex parte Quayle, 1935 C.D. 11, 4	453 O.G. 213.	
4) \boxtimes Claim(s) <u>1-16</u> is/are pending in the application	1.		
4a) Of the above claim(s) is/are withdraw	wn from consideration.		
5) Claim(s) is/are allowed.			
6)⊠ Claim(s) <u>1-16</u> is/are rejected.			
7) Claim(s) is/are objected to.			
8) Claim(s) are subject to restriction and/o	r election requirement.		
Application Papers			
9) The specification is objected to by the Examine		min or	
10) The drawing(s) filed on is/are: a) acce			
Applicant may not request that any objection to th 11) The proposed drawing correction filed on			
If approved, corrected drawings are required in re		oved by the Examiner.	
12) The oath or declaration is objected to by the Ex			
Priority under 35 U.S.C. §§ 119 and 120	GITTITOT.		
13) Acknowledgment is made of a claim for foreign	n priority under 35 U.S.C. & 1190	a)-(d) or (f)	
a) ⊠ All b) □ Some * c) □ None of:	ripriority and or o.o.o. 5 1 10(
1.⊠ Certified copies of the priority document	s have been received	*	
2. Certified copies of the priority document		ion No.	
3. Copies of the certified copies of the prior			
application from the International Bu * See the attached detailed Office action for a list	ıreau (PCT Rule 17.2(a)).		
14) Acknowledgment is made of a claim for domest	ic priority under 35 U.S.C. § 119	(e) (to a provisional application).	
 a) ☐ The translation of the foreign language pro 15) ☐ Acknowledgment is made of a claim for domes 			
Attachment(s)	•		
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informa	ry (PTO-413) Paper No(s) Patent Application (PTO-152)	
14) Acknowledgment is made of a claim for domest a) The translation of the foreign language pro 15) Acknowledgment is made of a claim for domes Attachment(s) 1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	ic priority under 35 U.S.C. § 119(ovisional application has been retic priority under 35 U.S.C. §§ 12 4) Interview Summa 5) Notice of Informal	(e) (to a provisional application). ceived. 0 and/or 121. ry (PTO-413) Paper No(s)	

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DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,397,189 to Minogue. Referring to claim 1, Minogue discloses an ergonomic keyboard comprising, a base (10) and a plurality of keys, located evenly on the base about a center line of the base and further arranged to form a plurality of arc key rows having a concentric center lying at the center line. See FIG. 2 and the corresponding specification.

Referring to claim 2, FIGS. 1, 2, 9 and 10 of Minogue show an ergonomic keyboard, wherein the keys are arranged on the base in accordance with a "QWERTY" standard keyboard arrangement.

Referring to claim 3, FIGS. 1, 2, 9 and 10 of Minogue show an ergonomic keyboard, wherein the concentric center is located at a side opposing to a user of said keyboard.

Referring to claim 4, FIGS. 1, 2, 9 and 10 of Minogue show an ergonomic keyboard, wherein the arc key rows are equal-spaced arranged (*sic*).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

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Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minogue in view of U.S. Patent No. 6,212,066 to Fetterman. Referring to claims 5 and 6, Minogue discloses an ergonomic keyboard as claimed, except for a base further including a plurality of non-standard function keys located at an upper edge thereof to macro a plurality of serial typing operations. Fetterman discloses a portable computer with removable keyboard having a plurality of non-standard function keys (306), which are used to reduce the number of keystrokes during typing operation, located at an upper edge of the keyboard. See FIG. 3A and the corresponding specification. It would have been obvious to one of ordinary skill in the art at the time the invention was made modify the ergonomic keyboard of Minogue to include function key at the upper edge, as taught by Fetterman, to provide ready access to the function for reducing typing stokes.

Referring to claim 7, Minogue discloses an ergonomic keyboard as claimed, except for the keyboard including a pair of fasteners for fixing said keyboard to a computer unit. Fetterman discloses a portable computer with removable keyboard having a pair of fasteners, i.e., latches (302) for fixing the keyboard to a computer unit (200). See FIGS. 2 and 3A and column 6, lines 14-17.

Claims 8-16 are rejected under 35 U.S.C. 103(a) s being unpatentable over Fetterman in view of Minogue. Referring to claim 8, Fetterman discloses a portable or notebook computer (100), comprising a host or base unit (102) for storage and for processing digital data, a display unit (118) for displaying the digital data, and an ergonomic keyboard (106), fixed on the host unit, further comprising a base; and a plurality of keys. See FIGS. 1 and 2 and the corresponding specification. Fetterman does not discloses the plurality of keys located evenly on the base about a center line and further arranged to form a plurality of arc key rows having a concentric center lying at the center line. As mentioned above, Minogue discloses the claimed arcuate keyboard. It would have been obvious to one of ordinary skill in the art at the time the invention was made modify the notebook computer of Fetterman to

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include an arcuate keyboard, as taught by Minogue, to provide a removable keyboard in a portable computer that reduces the stress on a user to help eliminate the risk of Repetitive Stress Injury (RSI).

Referring to claim 9, Fetterman in view of Minogue discloses a notebook computer having the keys further arranged on said base in accordance with a "QWERTY" standard keyboard arrangement.

Referring to claim 10, Fetterman in view of Minogue discloses a notebook computer, wherein the concentric center is located at a side opposing to a user of said keyboard.

Referring to claim 11, Fetterman in view of Minogue discloses a notebook computer, wherein the said arc key rows are equal-spaced arranged.

Referring to claim 12, Fetterman in view of Minogue discloses a notebook computer, wherein the arc key rows include letter keys and numeral keys. Fetterman in view of Minogue does not expressly disclose that each of the letter keys and the numeral keys has a size 0.85-0.98 times of a key of a keyboard for a desktop computer. However, Examiner takes Official Notice that reducing the size of the keys on the keyboard of a portable computer is conventional and well known. It would have been obvious to one of ordinary skill in the art at the time the invention was made to reduce the size of the letter keys and numeral on the keyboard of Fetterman in view of Minogue since the Examiner takes Official Notice that doing so in portable computers is conventional and well known.

Referring to claim 13, Fetterman in view of Minogue discloses a notebook computer, wherein the arc key rows include standard function keys. Fetterman in view of Minogue does not expressly disclose that each of the standard function keys has a size 0.6-0.8 times of a key of a keyboard for a desktop computer. However, Examiner takes Official Notice that reducing the size of the keys on the keyboard of a portable computer is conventional and well known. It would have been obvious to one of ordinary skill in the art at the time the invention was made to reduce the size of the function keys on

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the keyboard of Fetterman in view of Minogue since the Examiner takes Official Notice that doing so in portable computers is conventional and well known.

Referring to claims 14 and 15, Fetterman in view of Minogue discloses a notebook computer, wherein the base further includes a plurality of non-standard function keys located at an upper edge thereof, which are used to macro a plurality of serial typing operations for reducing the typing of said keys.

Referring to claim 16, Fetterman in view of Minogue discloses a notebook computer, wherein the ergonomic keyboard further includes a pair of fasteners for fixing said keyboard to said computer unit.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent Nos. 5,059,048 and 6,108,200.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Q. Edwards whose telephone number is 703-605-4214. The examiner can normally be reached on M-F (8:30-6:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Darren Schuberg can be reached on (703) 308-4815. The fax phone numbers for the organization

where this application or proceeding is assigned are (703) 308-7722 for regular communications and

(703) 306-5511 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-9929.

Gerald Tolin

AQE

December 27, 2002